

What is claimed is:

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1. A ~~display apparatus~~ for displaying a color image by controlling the number of emissions or the intensity thereof in accordance with primary color video signals input thereto, comprising:

5 a detection portion detecting said number of emissions or said intensity; and

a white balance correction portion correcting white balance by adjusting the amplitudes of said primary color video signals in accordance with said detected number of emissions or said detected intensity.

10 2. The display apparatus as claimed in claim 1, wherein said detection portion detects said number of emissions or said intensity from a display ratio of an image produced by said primary color video signals.

15 3. The display apparatus as claimed in claim 2, further comprising a control portion controlling the number of emissions for, or the intensities of, said primary color video signals in accordance with said display ratio of said image.

20 4. The display apparatus as claimed in claim 3, wherein said white balance correction portion comprises a computing unit and a plurality of multipliers wherein said computing unit computes amplitude coefficients for said primary color video signals in accordance with said display ratio of said image, and said multipliers multiply said primary color video signals respectively by said computed amplitude coefficients.

25 5. The display apparatus as claimed in claim 3, wherein said white balance correction portion comprises a storage unit and a plurality of multipliers wherein said storage unit outputs amplitude coefficients for said primary color video signals in accordance with said display ratio of said image, and said multipliers multiply said primary color video signals respectively by said amplitude coefficients output from said storage unit.

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18. The display apparatus as claimed in claim 1, wherein said display apparatus is a plasma display apparatus.

5 19. A display apparatus for displaying a color image by controlling the number of emissions or the intensity thereof in accordance with primary color video signals input thereto, wherein:

10 output gray levels of images represented by said primary color video signals are adjusted in accordance with input gray levels of said images represented by said primary color video signals, thereby correcting white balance which varies with the number of emissions for, or the intensities of, said primary color video signals.

15 20. The display apparatus as claimed in claim 19, further comprising:

a first detection portion detecting the input gray levels of said images represented by said primary color video signals; and

20 a correction portion correcting said white balance by adjusting the output gray levels of said primary color video signals in accordance with said detected input gray levels.

25 21. The display apparatus as claimed in claim 20, wherein said white balance correction portion comprises a computing unit and a plurality of correction units wherein said computing unit computes gray level correction coefficients in accordance with said detected input gray levels, and said correction units apply
30 corrections to said input gray levels by using said computed correction coefficients.

35 22. The display apparatus as claimed in claim 20, wherein said white balance correction portion comprises a storage unit and a plurality of correction units wherein said storage unit outputs gray level correction coefficients in accordance with said detected input gray levels, and said correction units apply corrections to

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said input gray levels by using said computed correction coefficients.

23. The display apparatus as claimed in/claim 20,
further comprising:

a second detection portion detecting a display ratio or display current of an image produced by said primary color video signals; and

a control portion controlling the number of emissions for, or the intensities of, said primary color video signals in accordance with said detected display ratio or said detected display current.

24. The display apparatus as claimed in claim 19, wherein emissions due to said primary color video signals are produced from phosphors of three primary colors, red, green, and blue.

25. The display apparatus as claimed in claim 19,
wherein said display apparatus is a plasma display
apparatus.

26. A white balance correction circuit for use in a display apparatus which displays a color image by controlling the number of emissions or the intensity thereof in accordance with primary color video signals input thereto, and which includes a detection portion detecting said number of emissions or said intensity, wherein said white balance correction circuit corrects white balance by adjusting the amplitudes of said primary color video signals in accordance with said detected number of emissions or said detected intensity.

27. The white balance correction circuit as claimed in claim 26, further comprising:

5 said white balance, which varies with the number of emissions for, or the intensities of, said primary color video signals, is corrected by adjusting the amplitudes of said primary color video signals in accordance with said controlled number of emissions or said controlled intensity.

28. The white balance correction circuit as claimed in claim 26, further comprising:

10 a storage unit storing amplitude coefficients for said primary color video signals, and outputting said amplitude coefficients in accordance with said number of emissions or said intensity; and

15 a plurality of multipliers multiplying said primary color video signals respectively by said output amplitude coefficients wherein:

20 said white balance, which varies with the number of emissions for, or the intensities of, said primary color video signals, is corrected by adjusting the amplitudes of said primary color video signals in accordance with said controlled number of emissions or said controlled intensity.

29. The white balance correction circuit as claimed in claim 26, further comprising:

25 a computing unit computing amplitude coefficients for said primary color video signals in accordance with said number of emissions or said intensity; and wherein:

30 said white balance, which varies with the number of emissions for or the intensities of said primary color video signals, is corrected by adjusting the amplitudes of said primary color video signals in accordance with said controlled number of emissions or said controlled intensity.

35 30. The white balance correction circuit as claimed in claim 26, further comprising:

a storage unit storing amplitude-adjusted primary color video signals, and outputting said

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amplitude coefficients in accordance with said primary color video signals and said number of emissions or said intensity; and wherein:

5 said white balance, which varies with the number of emissions for or the intensities of said primary color video signals, is corrected by adjusting the amplitudes of said primary color video signals in accordance with said controlled number of emissions or said controlled intensity.

10 31. The white balance correction circuit as claimed in claim 26, wherein said detection portion detects said number of emissions or said intensity from a display ratio of an image produced by said primary color video signals.

15 32. The white balance correction circuit as claimed in claim 26, wherein said detection portion detects said number of emissions or said intensity from a display current that flows when displaying an image in accordance with said primary color video signals.

20 33. The white balance correction circuit as claimed in claim 26, wherein said detection portion detects said number of emissions or said intensity from an externally applied luminance-adjusting input.

25 34. A white balance correction circuit for use in a display apparatus which displays a color image by controlling the number of emissions or the intensity thereof in accordance with primary color video signals input thereto, and which includes a detection portion detecting said number of emissions or said intensity, 30 wherein output gray levels of images represented by said primary color video signals are adjusted in accordance with input gray levels of said images represented by said primary color video signals, thereby correcting white balance which varies with the number of emissions for or 35 the intensities of said primary color video signals.

35 35. The white balance correction circuit as claimed in claim 34, further comprising:

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luminances of said primary color video signals, thereby suppressing variation of white balance with said luminances.

40. A white balance correction method for a display apparatus which displays a color image by controlling the number of emissions or the intensity thereof in accordance with primary color video signals input thereto, wherein:

the amplitude ratio between said
primary color video signals is set in accordance with the
number of emissions for, or the intensities of, said
primary color video signals, thereby correcting white
5 balance which varies with the number of emissions for, or
the intensities of, said primary color video signals.

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